(G) Silk films ● TIMING 2 d

(i) Add 4 ml of 8% (wt/vol) aqueous silk solution into a 100 mm Petri dish. The films produced by this method are generally 50um thick and can be easily removed from the polystyrene dish. For thicker films, either increase the amount of silk solution or the concentration of silk.

(ii) Allow to dry overnight without covering the dish. Any modifications to either the silk concentration or volume may increase drying times.

(iii) Fill the bottom of the vacuum desiccator with water.

(iv) Place the dry films in the desiccator and apply vacuum to the vacuum port.

(v) Allow the films to water anneal for 1 d.

□**CRITICAL STEP** The water-annealing step is critical to prevent the films from dissolving in water. We have found that water annealing induces β-sheet similarly to adding methanol but to a lesser extent.

(vi) Gently remove the film from the dish.

? **TROUBLESHOOTING**

(vii) Store at room temperature for up to 1 year (depending on film treatment and storage conditions).